ABSTRACT OF THE DISCLOSURE

When a two-division structure heat treatment jig for semiconductor substrate that includes a silicon first jig that comes into direct contact with a semiconductor substrate that is heat treated and supports the semiconductor substrate, and a second jig (holder) that holds the first jig and is mounted on a heat treatment boat is adopted as a heat treatment boat of a vertical heat treatment furnace, the stress concentrated during the heat treatment on a particular portion of the semiconductor substrate can be reduced; in the case of a semiconductor substrate large in the tare stress and having an outer shape of 300 mm being heat treated, or even in the case of the heat treatment being carried out under very high temperature conditions, the slips can be suppressed from occurring. The present invention can be widely applied as a stable heat treatment method of semiconductor substrates.